



Serial No. 09/648 290
Marked-up Claims 1-7

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1. (Amended) An operating unit of a vehicle having an automatic braking device that is applied to the vehicle travelling on a road provided with a transmitter for transmitting a signal formed of an electromagnetic wave comprising:

said automatic braking device and a receiver being respectively provided in the vehicle, wherein the automatic braking device drives a pump ~~when the receiver receives the signal formed of an electromagnetic wave, operating in order to operate~~ an automatic brake to wheel brakes provided in a pair of right and left front wheels and/or rear wheels, so that an antilock control device is operable during the operation of the automatic braking device;

said receiver outputting a control signal ~~in response to based on~~ the signal transmitted by the transmitter; and

said automatic braking device being operated ~~in response to based on~~ the control signal outputted by the receiver.

2. (Amended) An operating unit ~~of~~ applied to a vehicle having an automatic braking device comprising:

a transmitter provided on a road for transmitting a signal formed of an electromagnetic wave;

said automatic braking device and a receiver being respectively provided in the vehicle, wherein the automatic braking device drives a pump ~~when the receiver receives the signal formed of an electromagnetic wave, operating in order to operate~~ an automatic brake to wheel brakes provided in a pair of right and left front wheels and/or rear wheels, so that an antilock control device is operable during the operation of the automatic braking device;

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said receiver outputting a control signal ~~in response to~~ based on the signal transmitted by the transmitter; and

said automatic braking device being operated ~~in response to~~ based on the control signal outputted by the receiver.

3. (Amended) The operating unit of a vehicle having an automatic braking device according to Claim 1, further comprising reference value setting means provided in the vehicle, and wherein the automatic braking device is operated based on a reference value corresponding to a target travelling speed set by the reference value setting means ~~in response to~~ based on the control signal.

4. (Amended) The operating unit of a vehicle having an automatic braking device according to Claim 1, further comprising travelling speed detection means provided in the vehicle for detecting a travelling speed of the vehicle ~~in response to~~ based on the control signal and outputting an output signal so as to operate the automatic braking device.

5. (Amended) The operating unit of a vehicle having an automatic braking device according to Claim 1, further comprising at least one temperature detection means provided on the road for detecting that an atmospheric temperature reaches a given temperature and outputting a temperature signal, and wherein the transmitter transmits the signal ~~in response to~~ based on the temperature signal outputted by the temperature detection means.

6. (Amended) An operating unit of a vehicle having an automatic braking device that is applied to the vehicle travelling on a road provided with a transmitter

for transmitting a signal formed of an electromagnetic wave comprising:

said automatic braking device and a receiver being respectively provided in the vehicle, wherein the automatic braking device drives a pump ~~when the receiver receives the signal formed of an electromagnetic wave,~~ operating in order to operate an automatic brake to wheel brakes provided in a pair of right and left front wheels and/or rear wheels, so that an antilock control device is operable during the operation of the automatic braking device;

said receiver outputting a control signal ~~in response to~~ based on the signal transmitted by the transmitter; and

said automatic braking device being operated based on the control signal outputted by the receiver, wherein an alarm is given to the inside of the vehicle ~~by a sound in response to~~ based on the control signal outputted by the receiver.

7. (Amended) An operating unit ~~of~~ applied to a vehicle having an automatic braking device comprising:

a transmitter provided on a road for transmitting a signal formed of an electromagnetic wave;

said automatic braking device and a receiver being respectively provided in the vehicle, wherein the automatic braking device drives a pump ~~when the receiver receives the signal formed of an electromagnetic wave,~~ operating in order to operate an automatic brake to wheel brakes provided in a pair of right and left front wheels and/or rear wheels, so that an antilock control device is operable during the operation of the automatic braking device;

said receiver outputting a control signal ~~in response to~~ based on the signal transmitted by the transmitter; and

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said automatic braking device being operated based
on the control signal outputted by the receiver, wherein
an alarm is given to the inside of the vehicle ~~by a sound~~
~~in response to~~ based on the control signal outputted by
the receiver.



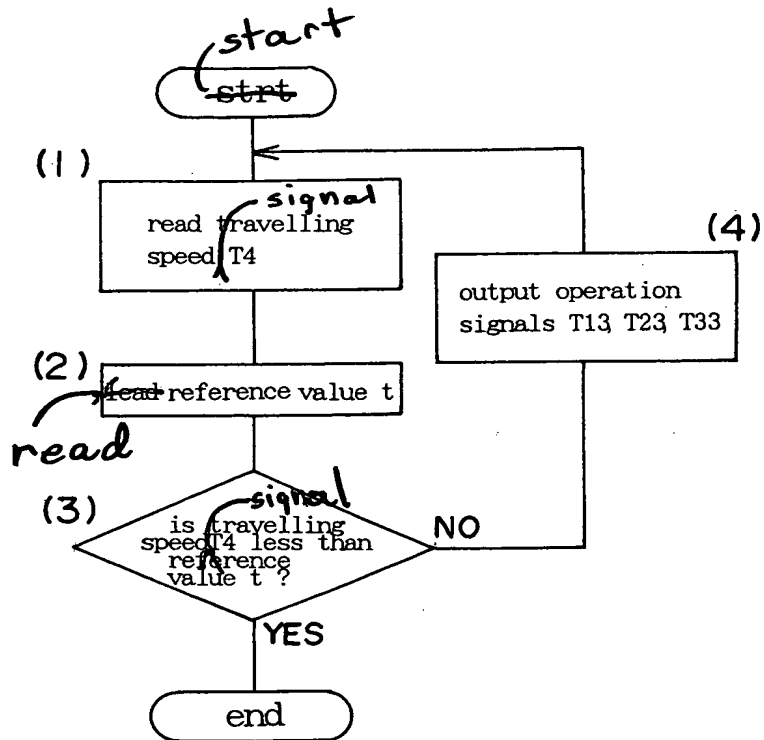
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thereby producing a braking force.

The braking force produced by the wheel brake 53 is continuously produced until the travelling speed signal T4 becomes less than the reference value t in accordance with the flow chart in Fig. 3. That is, a program starts when the control signal T3 is outputted by the receiver 7, and the travelling speed signal T4 outputted by the travelling speed detection means 81 is read (step (1)). Further, the reference value t of the reference value setting means 83 is read (step (2)). Then the reference value t is compared with the travelling speed signal T4 by the comparison means 82 (step (3)). If the travelling speed signal T4 is less than the reference value t, the control by the microcomputer 80 ends, so that the automatic braking device 6 is not operated. If the travelling speed signal T4 exceeds the reference value t, the program goes to a step (4) where the operation signals T13, T23, T33 are outputted, and then the program is returned to the step (1). When the program repeats the steps (1) to (4), the travelling speed signal T4 becomes less than the reference value t, so that the operation signals T13, T23, T33 are not outputted. In consequence, the control of the automatic braking device 6 is completed. If the reference value t is a value corresponding to a travelling speed of zero, the operation signals T13, T23, T33 are continuously outputted until the vehicle 8 stops so that the automatic braking device 6 operates.

The operation signal T13 is supplied to the solenoid portion of the blocking valve 57 so that the blocking valve 57 is positioned at the shut-off position e. The operation signal T23 is supplied to the solenoid portion of the charging valve 74 so that the charging valve 74 is positioned at the communication position h. The operation signal T33 is supplied to the motor 60A so as to drive the pump 60. The antilock control device is operable even while the automatic braking device 6 operates as set forth above, thereby preventing the wheels from being locked.

FIG. 3



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